

a receiver having an input;
a line transformer coupled to the transmitter output and the receiver input; and
an echo compensation circuit comprising:
a first circuit branch coupled to the transmitter first output and the receiver input; and
a second circuit branch coupled to the transmitter second output and the receiver
input such that a reconstructed received signal and an echo compensation signal are combined and
coupled to the receiver input, thereby compensating for the echo signal in a telecommunication
device.

6. (Original) The apparatus according to claim 5, wherein:
the first circuit branch further comprises a first resistor and a first capacitor
connected in series; and
the second circuit branch further comprises a second resistor and a second capacitor
connected in series.

7. (Previously Presented) The apparatus according to claim 5, further
comprising
a second receiver having an input; and
a second echo compensation circuit comprising:
a third circuit branch coupled to the transmitter second output and the second
receiver input; and
a fourth circuit branch coupled to the transmitter output and the second receiver
input;
wherein the line transformer is coupled to the second transmitter output and the
second receiver input.

8. (Original) The apparatus according to claim 7, wherein:
the third circuit branch further comprises a third resistor and a third capacitor
connected in series; and

the fourth circuit branch further comprises a fourth resistor and a fourth capacitor connected in series.

9. (Original) An apparatus for compensating for echo signal in a telecommunications device comprising:

- a first differential transmitter having an output terminal coupled to a first transmitted signal node;

- a second differential transmitter having an output terminal coupled to a second transmitted signal node;

- a first current limiting resistor having a first terminal coupled to the first transmitted signal node and a second terminal coupled to a first line transformer node;

- a second current limiting resistor having a first terminal coupled to the second transmitted signal node and a second terminal coupled to a second line transformer node;

- a first sampling resistor having a first terminal coupled to the first line transformer node and a second terminal connected to a first received signal node;

- a second sampling resistor having a first terminal coupled to the second line transformer node and a second terminal connected to a second received signal node;

- a first compensation circuit having a first terminal coupled to the first transmitted signal node and a second terminal coupled to the first received signal node;

- a second compensation circuit having a first terminal coupled to the first transmitted signal node and a second terminal coupled to the second received signal node;

- a third compensation circuit having a first terminal coupled to the second transmitted signal node and a second terminal coupled to the second received signal node; and

- a fourth compensation circuit having a first terminal coupled to the second transmitted signal node and a second terminal coupled to the first received signal node.

10. (Original) An apparatus for compensating for echo signal in a telecommunications device according to claim 9 wherein,

the first compensation circuit further comprises a first compensation resistor and a first compensation capacitor connected in series;

the second compensation circuit further comprises a second compensation resistor and a second compensation capacitor connected in series;

the third compensation circuit further comprises a third compensation resistor and a third compensation capacitor connected in series; and

the fourth compensation circuit further comprises a fourth compensation resistor and a fourth compensation capacitor connected in series.

11. (Original) An apparatus for compensating for echo signal in a telecommunications device according to claim 9 wherein,

the first terminal of the first sampling resistor is coupled to the first transmitted signal node; and

the first terminal of the second sampling resistor is coupled to the second transmitted signal node.

12. (Previously Presented) The method of claim 1, wherein the transmit signal and the inverted transmit signal are complimentary transmission signal outputs from a differential transmitter pair.